S.no	Supervisor name	Supervisor email	Project Description	Expertise				
1	Abishek Subramanian Iyer	a.s.iyer@student.vu.nl	Open Project - Choose your own topic	Data Analytics: 98	Machine Learning: 84	N/A	N/A	N/A
2	Alexandru Iosup	a.iosup@vu.nl	For all projects, see https://docs.google.com/document/d/1k-wTpn1JyAtVg72pIrsOZnGdjrWzEz_CIExGq_6RCLI/ . We offer careful supervision for any level of quality and ambition, see https://atlarge-research.com/new_students.html . Students we supervise have reached the highest level of achievement and acclaim, winning prestigious awards.	Workload:100	Design:73	Service:72	User:68	Application:56
3	Ali Mehrabi	a.mehrabi@vu.nl	Topics: algorithms, data structures, networks and graphs. I am open to advise projects, theory and/or implementations, in any of the topics above. If you have any project in any of these areas in mind and would like to work with me, then feel free to shoot me an email. Otherwise, if you have obtained good grades in your algorithms-related courses (e.g., algorithms, data structures, networks and graphs) and would like to work with me, then feel free to contact me. We will then try to come up with a project to work on. In addition, I consider emails until February 15. Emails sent to me after February 15 will not be considered.	Algorithms: 83	Data Strcutures: 83	N/A	N/A	N/A
4	Animesh Trivedi	a.trivedi@vu.nl	https://docs.google.com/document/d/1k-wTpn1JyAtVg72pIrsOZnGdjrWzEz_CIExGq_6RCLI/edit See projects with AT- prefix	Application: 100	Design: 81	Input/Output: 73	User: 70	Service: 51
5	Atze van der Ploeg	a.j.vander.ploeg@vu.nl	Your own topic in programming languages, compilers, or related field. This is a project in a group in the following way: each student has his/her/their own project, but the meetings with supervisor are group meetings. The group will be small 3-5 students. The idea of the group meetings is that you also see how the other students are progressing and that you can discuss approaches with each other. To participate you must be comfortable to share your project progress, as well as draft versions of your thesis with the group. The first couple of weeks are spend finetuning/finding your research topic and research plan. Typically you program something which helps you answer a research question. The research question and/or its answer do not have to be unknown, what matters is that you show you can answer (part of) it independently. Previous tops topics: "All dependency injection systems are zero-cost" " Protecting Against the 'Trusting Trust' Attack in The Context of Reproducible Builds" "Using register pressure in aiding function inlining decisions" "Comparing Forward-Edge Control-Flow Integrity Policies" "Design, Implementation, and Benchmarking of a Modular JIT Compiler" "How to choose loop unroll factors in hardware design and software", "Arenas in Rust: encoding and benefits", "Purity detection and its benefits", "Optimizing Dynamically Typed Programming Languages With Static Type Annotations and Type inference","A performance comparison of CPU and GPU Ray Tracing Implementations" "Eliminating recursion in ML languages", "Methods Used For Redundant Array Bounds-check Elimination And The Gains of Variable Range Analysis","Automatic break insertion"	Multiple Sequence Alignment: 100	DNA: 50	Protein Secondary Structure: 50	N/A	N/A
6	Atze van der Ploeg	a.j.vander.ploeg@vu.nl	Internship supervision for a project in the area of programming languages, compilers, computer graphics or related field	Multiple Sequence Alignment: 100	DNA: 50	Protein Secondary Structure: 51	N/A	N/A
7	Balakrishnan Chandrasekaran	b.chandrasekaran@vu.nl	PIP	Internet: 100	User: 80	Application: 62	Design: 41	Blockchain: 38
8	Balakrishnan Chandrasekaran	b.chandrasekaran@vu.nl	Networked systems	Internet: 100	User: 80	Application: 62	Design: 41	
9	Claudia Raibulet	c.raibulet@vu.nl	Slot Assigned- Software Engineering Processes in Companies -An Experience Report	Evaluation: 100	Design: 96	Application: 76	Self-Adaptive System: 73	Service: 72
10	Cristiano Giuffrida	c.giuffrida@vu.nl	Speculative Race Conditions Attack Surface Analysis	Attack: 100	Attackers: 41	Programs: 37	Application: 34	Vulnerability: 29
11	Cristiano Giuffrida	c.giuffrida@vu.nl	Unikraft for Embedded Systems	Attack: 100	Attackers: 41	Programs: 37	Application: 34	Vulnerability: 29
12	Cristiano Giuffrida	c.giuffrida@vu.nl	See https://www.vusec.net/student-projects for information on topics and how to get in touch	Attack: 100	Attackers: 41	Programs: 37	Application: 34	Vulnerability: 29
13	Danny Beckers	d.j.beckers@vu.nl		N/A	N/A	N/A	N/A	N/A
14	Emitzá Guzman	e.guzmanortega@vu.nl	Simulation of people reactions to ethical issues in software	User: 100	Software Evolution: 49	Software: 43	Software Application: 21	Sentiment Analysis: 19
15	Erik van der Kouwe	e.vander.kouwe@vu.nl	(slot taken, but feel free to try if you have a specific interest in systems security; see https://www.vusec.net/student-projects for information on topics and how to get in touch)	Fault Injection: 100	Fuzzing: 75	Experiments: 64	Software: 63	Fault Injection Experiment: 63
16	Fabio Massacci	f.massacci@vu.nl	ML for software vulnerabilities	Vulnerability: 100	Software: 55	Application: 52	Model: 50	Evaluation: 43
17	Felienne Hermans	f.f.j.hermans@vu.nl	Connect Hedy with micro:python	Spreadsheet: 100	Program: 42	User: 41	Education: 38	Programming: 33

#	Name	Email	Project	Col1	Col2	Col3	Col4	Col5
18	Felienne Hermans/Thilo Kielmann	f.f.j.hermans@vu.nl; thilo.kielmann@vu.nl	Translate Hedy programs	Spreadsheet: 100	Program: 42	User: 41	Education: 38	Programming: 33
19	Felienne Hermans	f.f.j.hermans@vu.nl	Interview with Dutch kids about learning programming (Dutch language required!)	Spreadsheet: 100	Program: 42	User: 41	Education: 38	Programming: 33
20	Felienne Hermans	f.f.j.hermans@vu.nl	Improve Hedy Error messages	Spreadsheet: 100	Program: 42	User: 41	Education: 38	Programming: 33
21	Felienne Hermans	f.f.j.hermans@vu.nl	Add puzzles to Hedy	Spreadsheet: 100	Program: 42	User: 41	Education: 38	Programming: 33
22	Femke van Raamsdonk	f.van.raamsdonk@vu.nl	reachability in string rewriting using automata and sat-solving	Joints (Structural Components): 100	Rapid Thermal Annealing: 100	Term: 100	Volume: 50	N/A
23	Femke van Raamsdonk	f.van.raamsdonk@vu.nl	mine sweeper using sat-solving	Joints (Structural Components): 100	Rapid Thermal Annealing: 100	Term: 100	Volume: 50	N/A
24	Femke van Raamsdonk	f.van.raamsdonk@vu.nl	complexibility of computations on data types in lambda calculus	Joints (Structural Components): 100	Rapid Thermal Annealing: 100	Term: 100	Volume: 50	N/A
25	Femke van Raamsdonk	f.van.raamsdonk@vu.nl	evaluator of combinatory logic to study head reduction of S-terms	Joints (Structural Components): 100	Rapid Thermal Annealing: 100	Term: 100	Volume: 50	N/A
26	Fernanda Madeiral	f.madeiral.delfim@vu.nl	(PIP) read here: https://canvas.vu.nl/courses/74532 and apply here: https://forms.gle/BA1ZQFx162p6gZjm6	Programs: 100	Systematic Literature Review: 66	Source Codes: 66	User: 66	Humans: 66
27	Francesc Verdugo Rojano	f.verdugo.rojano@vu.nl	See the link for detailed information about my projects and how to get in touch: project-topics-francesc-verdugo	Finite Element Method: 100	Transients: 88	Quantity: 85	Error: 82	Adjoints: 79
28	Henri Bal	h.e.bal@vu.nl	A multipipe P4 software switch	Application: 100	Evaluation: 67	Model: 65	Accuracy: 62	User: 60
29	Henri Bal	h.e.bal@vu.nl	Multi-Target Multi-Camera Tracking Benchmarking	Application: 100	Evaluation: 67	Model: 65	Accuracy: 62	User: 60
30	Henri Bal	h.e.bal@vu.nl	Neural pruning for Deep Neural network ensembles	Application: 100	Evaluation: 67	Model: 65	Accuracy: 62	User: 60
31	Henri Bal	h.e.bal@vu.nl	Implementing one of the Peachy Parallel Assignments in the Julia language (requires Concurrency & Multithreading); see https://tcpp.cs.gsu.edu/curriculum/?q=peachy	Application: 100	Evaluation: 67	Model: 65	Accuracy: 62	User: 60
32	Herbert Bos	h.j.bos@vu.nl	election security / OCR	Attack: 100	Attackers: 40	Application: 33	Programs: 32	Software: 27
33	Herbert Bos	h.j.bos@vu.nl	anti-fake photos/videos	Attack: 100	Attackers: 40	Application: 33	Programs: 32	Software: 27
34	Herbert Bos	h.j.bos@vu.nl	minemu on ARM	Attack: 100	Attackers: 40	Application: 33	Programs: 32	Software: 27
35	Herbert Bos	h.j.bos@vu.nl	See https://www.vusec.net/student-projects for information on topics and how to get in touch	Attack: 100	Attackers: 40	Application: 33	Programs: 32	Software: 27
36	Ilias Gerostathopoulos	i.g.gerostathopoulos@vu.nl	Reserved for PIP: Product Innovation Project	Cyber Physical Systems: 100	Design: 67	Model: 60	Application: 55	Software: 42
37	Ivano Malavolta	i.malavolta@vu.nl	N/A	Android: 100	Model: 89	Energy Consumption: 83	Software: 82	User: 72
38	Jacco van Ossenbruggen	jacco.van.ossenbruggen@vu.nl	N/A	User 100	Cultural Heritage: 63	Metadata: 58	Domain: 55	Case Study: 48
39	Jacopo Urbani	j.urbani@vu.nl	N/A	Reasoning: 100	Model: 47	Knowledge Base: 47	Semantics: L43	Algorithms: 35
40	Joerg Endrullis	j.endrullis@vu.nl	comparison of pattern matching algorithms	N/A	N/A	N/A	N/A	N/A
41	Joerg Endrullis	j.endrullis@vu.nl	termination of string rewriting using matrix interpretations and sat-solving	N/A	N/A	N/A	N/A	N/A
42	Joerg Endrullis	j.endrullis@vu.nl	graph colouring using sat-solcing	N/A	N/A	N/A	N/A	N/A
43	Justus Bogner	j.bogner@vu.nl	a benchmark-based experiment to evaluate the energy efficiency vs. accuracy trade-off of different types of ML model compositions, e.g., ensembles, metamodels, 2-phase predictions, sequential decomposition, etc. [slot taken]	Microservice: 100	Service: 97	Maintainability: 37	Enterprise Architecture: 36	Artificial Intelligence 35
44	Justus Bogner	j.bogner@vu.nl	a qualitative study about ML model export formats (Pickle, HDF, SavedModel, ONNX, PMML, PFA, etc.) and their portability [slot taken]	Microservice: 100	Service: 97	Maintainability: 37	Enterprise Architecture: 36	Artificial Intelligence 35
45	Katja Tuma	k.tuma@vu.nl	(PIP) read here: https://canvas.vu.nl/courses/74532 and apply here: https://forms.gle/BA1ZQFx162p6gZjm6	Design: 100	Model: 69	Security Design: 68	Threat Analysis: 68	Threat: 61
46	Kees Verstoep	c.verstoep@vu.nl	Internet-of-Things related project [slot taken]	N/A	N/A	N/A	N/A	N/A
47	Kees Verstoep	c.verstoep@vu.nl	Internet-of-Things related project (see https://cs.vu.nl/~versto/IoT-lab.html for overview)	N/A	N/A	N/A	N/A	N/A
48	Kees Verstoep	c.verstoep@vu.nl	external internship project [slot taken]	N/A	N/A	N/A	N/A	N/A
49	Klaus von Gleissenthall	k.freiherrvongleissenthal@vu.nl	Verifying Side-Channel Freedom of Hardware	N/A	N/A	N/A	N/A	N/A
50	Klaus von Gleissenthall	k.freiherrvongleissenthal@vu.nl	PL/Security	N/A	N/A	N/A	N/A	N/A
51	Kousar Aslam	k.aslam@vu.nl		Model: 100	Software: 65	Software Component: 52	Survey: 47	Driven Software: 47
52	Kristina Sojakova	k.sojakova@vu.nl	taken	Type Theory: 100	Homotopy Type: 69	Inductive Type: 59	Homotopy: 47	Logical Framework: 28

53	Mauricio Verano Merino	m.verano.merino@vu.nl	creative coding: Interactive objects and prototyping by using smartphones sensors	User: 100	Domain: 97	Domain-specific-languages: 81	Web Application: 64	Programming Environment: 64
54	Mauricio Verano Merino	m.verano.merino@vu.nl	Exporting code-based artworks in creative coding editors	User: 100	Domain: 97	Domain-specific-languages: 81	Web Application: 64	Programming Environment: 64
55	Natalia Silvis	ase@vu.nl	Autonomous Systems Engineering (ASE)-1: a unique Bachelor project in research and active development of autonomous mobile systems, see https://vu-ase.github.io/site	Software Testing: 100	Testing: 55	Software: 50	Pervasive Computing: 41	Evaluation: 38
56	Natalia Silvis	ase@vu.nl	ASE-2,	Software Testing: 100	Testing: 55	Software: 50	Pervasive Computing: 41	Evaluation: 38
57	Natalia Silvis	ase@vu.nl	ASE-3	Software Testing: 100	Testing: 55	Software: 50	Pervasive Computing: 41	Evaluation: 38
58	Natalia Silvis	ase@vu.nl	ASE-4	Software Testing: 100	Testing: 55	Software: 50	Pervasive Computing: 41	Evaluation: 38
59	Natalia Silvis	ase@vu.nl	ASE-5	Software Testing: 100	Testing: 55	Software: 50	Pervasive Computing: 41	Evaluation: 38
60	Natalia Silvis	n.silvis-cividjian@vu.nl	Using physiological sensors to recognize emotions	Software Testing: 100	Testing: 55	Software: 50	Pervasive Computing: 41	Evaluation: 38
61	Natalia Silvis	n.silvis-cividjian@vu.nl	This is a project at ACTA in the VU, supervised by Dr. Maxim Lagerweij. Dentists have relied on asking patients about their diet and a paper diary to learn which dietary habits lead to caries. With smartphones and smartwatches, a notification asking whether somebody is or has eaten, or drunken sugar can be sent and the patient can note this more accurately. In this research a new app will be developed that sends notifications and asks about the patient's diet, keeping track of their dietary habits. In a real-life experiment this should be compared with the paper version.	Software Testing: 100	Testing: 55	Software: 50	Pervasive Computing: 41	Evaluation: 38
62	Natalia Silvis	n.silvis-cividjian@vu.nl	This is a project at ACTA in the VU, supervised by Dr. Maxim Lagerweij. With a Comenius grant we are developing an interactive database with patient cases that develop caries. The project concerns tweaking an algorithm (Cariogram) and the feedback through that algorithm to dental students such that they learn to control the development of caries via a change of diet and/or oral hygiene habits or medication. In principle it could be easier to apply dental measures to prevent caries, but this not always necessary and thus would be overtreatment.	Software Testing: 100	Testing: 55	Software: 50	Pervasive Computing: 41	Evaluation: 38
63	Thilo Kielmann	thilo.kielmann@vu.nl	Translate programs including variables names and strings	Application: 100	Public Cloud: 30	Distributed File Systems: 30	Resource Utilisation: 30	User: 30
64	Thilo Kielmann	thilo.kielmann@vu.nl	Green Energy Projects	Application: 100	Public Cloud: 30	Distributed File Systems: 30	Resource Utilisation: 30	User: 30
65	Thilo Kielmann	thilo.kielmann@vu.nl	suggest your own project about programming (education) or green energy, or anything else that can be tackled with CS methods within 3 months time that solves a somewhat open problem	Application: 100	Public Cloud: 30	Distributed File Systems: 30	Resource Utilisation: 30	User: 30
66	Tiziano De Matteis	t.de.matteis@vu.nl	[Taken] "Mojo: hype or reality?" Mojo is a recently proposed programming language, built as a superset of Python. The claim of the developers is that it "combines the usability of Python with the performance of C". In September 2023, Mojo is available for download so it is the right time to assess such claims! In this thesis we want to evaluate it both in terms of user experience (how easy is to program in Mojo? How difficult is to optimize Mojo programs to obtain good performance?) and its in terms of performance More details and requirements available at: https://docs.google.com/document/d/1k-wTpn1JyAtVg72pIrsOZnGdjrWzEz_CIExGq_6RCLI/edit#heading=h.xexj0lembtoz	Application: 100	Multicore: 85	Data Stram Processing: 62	Parallel Pattern: 59	Data Stream: 54
67	Tiziano De Matteis	t.de.matteis@vu.nl	[Available] "Streaming analytics on Versal Devices". AMD/Xilinx Versal devices are new dataflow computers that combine heterogeneous computing capabilities. How to program efficiently these devices is still an open questions. In this thesis we want to investigate their feasibility targeting streaming analytics. More details and requirements available at: https://docs.google.com/document/d/1k-wTpn1JyAtVg72pIrsOZnGdjrWzEz_CIExGq_6RCLI/edit#heading=h.xexj0lembtoz	Application: 100	Multicore: 85	Data Stram Processing: 62	Parallel Pattern: 59	Data Stream: 54
68	Tiziano De Matteis	t.de.matteis@vu.nl	[Taken] "Evaluation of different sparse matrices format". Sparse Matrices are widely used today in scientific applications (e.g. solving linear systems of equations) and in machine learning. Sparse Matrices can be represented using different formats, that differ in terms of memory access layout, and, therefore in the total execution time of the sparse matrix operations (e.g., SpMV, sparse matrix-vector). In this thesis we want to review the different sparse matrix format available today and discuss their performance. More details and requirements available at: https://docs.google.com/document/d/1k-wTpn1JyAtVg72pIrsOZnGdjrWzEz_CIExGq_6RCLI/edit#heading=h.xexj0lembtoz	Application: 100	Multicore: 85	Data Stram Processing: 62	Parallel Pattern: 59	Data Stream: 54

69	Tiziano De Matteis	t.de.matteis@vu.nl	[Taken] "Simulating cooling cost in OpenDC". OpenDC is a data center simulator that can be used as a tool to evaluate the performance of different topologies, schedulers or energy models. OpenDC does currently not take the cost of cooling machines into account. However, when designing real datacenters, both are important factors. In this project, we will create a model that simulated the energy cost of cooling.	Application: 100	Multicore: 85	Data Stram Processing: 62	Parallel Pattern: 59	Data Stream: 54
70	Tiziano De Matteis	t.de.matteis@vu.nl	[Taken] "Graph Processing in OpenDC". OpenDC is a data center simulator that can be used as a tool to evaluate the performance of different topologies, schedulers or energy models. At the moment, OpenDC is primarily used to simulated simple VM servers running. However, modern computing consists of many more types of tasks. One such type is working with graphs. Graph processing is a very important part of modern computing and is thus something that OpenDC should support. In this project we will first measure the performance of different graph operations. After, we will use the results to create a model that could simulate graph processing tasks.	Application: 100	Multicore: 85	Data Stram Processing: 62	Parallel Pattern: 59	Data Stream: 54
71	Tiziano De Matteis	t.de.matteis@vu.nl	For all projects, see https://docs.google.com/document/d/1k-wTpn1JyAtVg72pIrsOZnGdjrWzEz_CIExGq_6RCLI/ . We offer careful supervision, see https://atlarge-research.com/new_students.html . Students we supervise have reached the highest level of achievement and acclaim, winning prestigious awards.	Application: 100	Multicore: 85	Data Stram Processing: 62	Parallel Pattern: 59	Data Stream: 54
72	Wan Fokkink	w.j.fokkink@vu.nl	Adapt Hughes distributed garbage collection algorithm for non-FIFO channels - TAKEN	Model: 100	Models: 64	Semantics: 54	Control: 53	Supervisory Control: 44